

REMARKS

In response to the Office Action dated January 23, 2009, Applicants amended claims 1, 3, 4, 7, 10, 16, 21, 23, 28, 31, 32, 36 and 38-40. Applicants also added new claims 42-49. Applicants present claims 1-4, 6-17 and 20-49 for examination.

The Examiner rejected claim 38 under 35 U.S.C. §112, second paragraph. Applicants believe the intent was to reject claim 39 on this basis. Applicants amended claim 39 to obviate the rejection, so the rejection should be withdrawn.

The Examiner rejected claims 1, 2, 7 and 8 under 35 U.S.C. §102(b) as being anticipated by Nakamura. The Examiner asserted that Nakamura's element 12 has a planar surface. (Office Action, p. 3.) However, it is apparent from Fig. 2B of Nakamura that element 12 has a structured surface rather than a planar surface. Further, Nakamura does not disclose "a substrate having a first surface and a second surface opposite the first surface, [and] a first electrode, the first electrode being closer to the first surface of the substrate than the second surface of the substrate". For at least these reasons, Applicants request reconsideration and withdrawal of this rejection.

The Examiner rejected claims 4 and 29 under 35 U.S.C. §102(b) as being anticipated by Nakamura. But, Nakamura does not disclose "a substrate having a first surface and a second surface opposite the first surface, the first surface of the substrate being a structured surface; [and] a first electrode, the first electrode being closer to the first surface of the substrate than the second surface of the substrate". For at least this reason, Applicants request reconsideration and withdrawal of this rejection.

The Examiner rejected claims 1, 3, 4, 6, 7, 9-15, 21-28 and 30-41 under 35 U.S.C. §103(a) as being anticipated by Mizuno in view of Fujimori. But, it would not have been obvious to one skilled in the art to combine these references in the manner indicated by the Examiner. Mizuno discusses issues relating to the device efficiency (Mizuno, col. 1, line 19-col. 2, line 29), and he states:

It is an object of the invention to provide a thin film semiconductor device and a method of manufacturing the same capable of improving the optical absorption efficiency of a single crystal silicon thin film or the like and thus improving the photoelectric conversion efficiency. (Id., col. 2, lines 33-37.)

Mizuno also states:

In the thin film semiconductor device of the invention, the light passing through the photoelectric conversion layer is reflected toward the photoelectric conversion layer by the diffraction function layer, and the reflected light again enters into the photoelectric conversion layer. A condition under which the reflected light is totally reflected toward the photoelectric conversion layer is set, whereby the light is confined within the photoelectric conversion layer and thus the photoelectric conversion efficiency is improved. (Id., lines 57-65.)

Mizuno further states that the “diffraction function layer [is] located on one side of the photoelectric conversion device opposite to the other side on which the light is incident.” (Id., lines 41-43.) As shown in Fig. 2, Mizuno’s device includes a diffraction grating 15 on a substrate 14. Thus, one skilled in the art would understand that the light impacts Mizuno’s device on the side opposite to grating 15. Fig. 2 of Fujimori shows that light impacts element 2 of his device (Fujimori, Fig. 2). As a result, it would not have been obvious to one skilled in the art to incorporate Mizuno’s grating 15 into Fujimori’s device in the manner shown in the figure at page 6 of the Office Action because, contrary to Mizuno’s express teaching, in such a construction the grating would be on the side of the device that the light impacts. Moreover, even it would have somehow been obvious to combine Mizuno and Fujimori, the resulting device would not have an organic semiconductor layer that includes a conjugated polymer and an acceptor, as required by claims 1, 3, 4, 6, 21, 23-28, 30, 31 and 33-41. Thus, Applicants request reconsideration and withdrawal of this rejection.

The Examiner rejected claims 16, 17 and 20 under 35 U.S.C. §103(a) as being anticipated by Fujimori in view of Mizuno. Applicants do not concede that it would have been obvious to one skilled in the art to combine these references in the manner indicated by the Examiner, and, even if the references were so combined, the result would not be the subject matter covered by claims 16, 17 and 20, at least because the result would not have an organic semiconductor that

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includes a conjugated polymer and an acceptor. Applicants therefore request reconsideration and withdrawal of this rejection.

The fees in the amount of \$416.00 are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050, referencing attorney docket no. 21928-0017US1.

Respectfully submitted,

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